

Cookbook of Activities for Driver Education

MT CURRICULUM GUIDE

M10

Objective: Managing steering and braking weight transfer

INGREDIENTS

Two lengths of string about 3 feet long

Simulated steering wheel

INSTRUCTIONS

Tie one end of both strings to the bottom of the steering wheel and one end to each toe of both shoes

A tire cannot exceed 100% of any one function or combination of functions at any given time. If, for example, you use all the traction available (100%) to brake in a straight line, you will not have any percentage left over for turning. If you need to turn while braking, you have to reduce the percentage used for braking in order to have some left over for turning. 100% adhesion is not available in two directions at once!

Imagine a string with one end attached to the bottom center of your steering wheel when it is in a neutral (straight) position and the other secured to your accelerator in the depressed position.

- When you turn your wheel, it forces the accelerator to ease up. As the wheel straightens out, you are able to fully depress the accelerator. There is a balance between accelerating and turning that adds up to the 100% traction available
- Similarly, imagine the string attached to the brake pedal instead. The same principle applies. In short, you cannot turn the wheel without giving up some acceleration or braking power.

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